



# Fanless Module



## One Engine, Many Applications

# DIGITALENGINE

## DEX4500 Series

### Small Form Factor and low power consumption design

- 2.4L compact size: 200mm(L) x 200mm(W) x 60mm(H).
- Under 90W low power consumption with MoDT technology.
- Fanless design robust thermal solution.

- Fail-safe design robust

- Supports Intel® Core™ 2 Duo P8000, P9000 series TDP 25W dual core CPU with 667/800/1066MHz FSB.
- Intel® GM45+ICH9M chipset with GMA X4500MHD graphics engine, supports Microsoft® DirectX™ 10.
- Supports dual channel SO-DIMM DDR-II 667/800MHz memory up to 4GB.

## Reliable features for applications

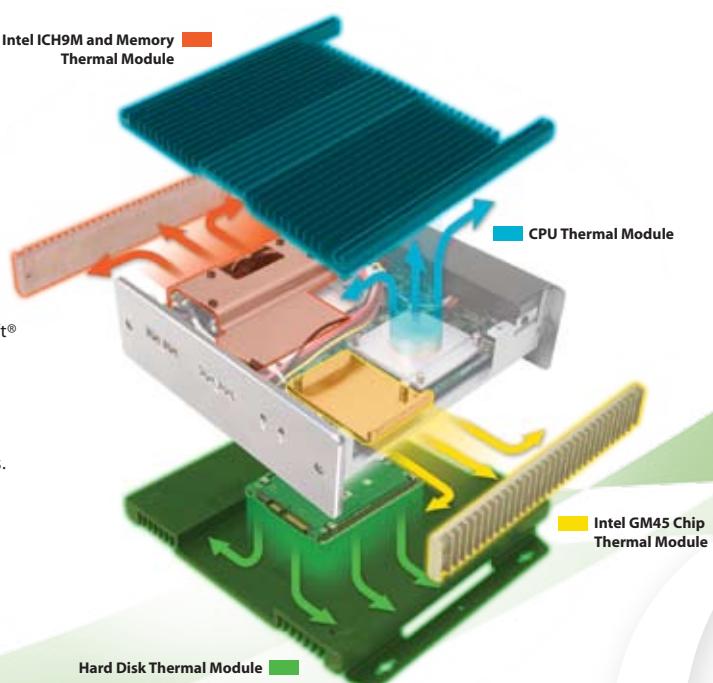
- Robust, rugged mechanical design with anti-shock and anti-vibration properties.
- Wide power range support from DC 12V~20V Input in most of industrial environments.
- Supports Watch Dog Timer function.

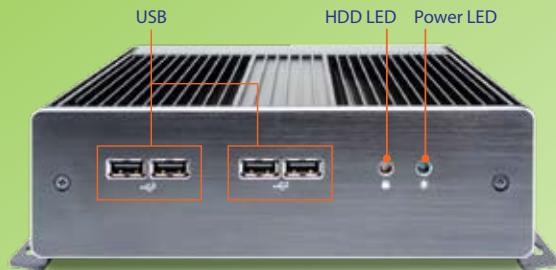
- Microsoft® Windows™ XP Embedded im

- Supports HDMI interface with HDCP protocol for high definition content output.
- Supports dual display through HDMI and DVI connectors.
- Full HD 1080p video playback ability.
- 7.1 channel audio output.

## 3.7.1 **Extension features**

- Supports SATA 2.0 2.5" internal hard disk drive.
- Provided e-SATA connector for external device such as hard disk drive or optical drive.
- Provided eight USB 2.0 ports for easy connect to most peripherals.
- Two mini Card slots for function extension.
- Provided RS232 port.
- Gigabit networking.





## Specifications

Model name	DEX4501	DEX4502
<b>Product SKU</b>		
Territory	Worldwide	Europe
Part Number	91.DE201.I510	91.DE201.I520
EAN/JAN Code	471260-293664-4	471260-293665-1
<b>Product Specification</b>		
Housing Material	SECC/ Aluminum	
Housing Color	Black	
Dimension	WxHxD(mm)	200(W) x 60(H) x 200(D) mm
	WxHxD(inch)	7.87(W) x 2.36(H) x 7.87(D) inch
Volume(liters)	2.4L	
Weight(Kg/Pound)	2.85 kg / 6.27 pound (N.W.)	
Form Factor	mini-ITX	
CPU	Socket	Socket P
	Type	Support intel Penryn Core 2 Duo CPU TDP=25W
	FSB	667/800/1066 MHz
Chipset	NB	Intel GM45 chipset
	SB	ICH9M
Memory	Dual Channel	Dual Channel
	Type	DDRII SO-DIMM x 2
	DDR	667/800
	Max Memory	4G(1)
Graphics	Chip	Intel GMA X4500 MHD
	DVI Port	x 1
	VGA Port	x 1 (via DVI-to-VGA converter)
	HDMI Port	x 1
Expansion Slot	mini Card Slot	x 2
Audio	Type	Realtek HD Audio Codec ALC888
	Channel	7.1 CH
LAN		Intel Gigabit Ethernet
		10/100/1000

Model name	DEX4501	DEX4502
<b>USB 2.0</b>		x 8 (4 (Rear), 4 (Front))
Storage	S-ATA Connector	x 3
Security	Kensington Lock Hole	x 1 (Rear)
Storage Bay	2.5" SATA II HDD Bay	x 1
CPU Thermal	Module	AOpen Proprietary Fan Less Thermal Solution
	Noise	20dB
<b>WatchDog Timer</b>		1 ~ 255 SEC./ min
<b>Adapter</b>		90W (20V, 4.5A) AC Adapter
<b>Input Voltage</b>		AC 100 ~ 240V
<b>Environment</b>		
MTBF		40,000hrs
Operating Temperature		-5 ~ 40°C (23 ~ 104°F)
Storage Temperature		-20 ~ 60°C (-4 ~ 140°F)
Relative Humidity		90% RH (40°C non-Condensing)
Operating Vibration		0.5Grms, random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis
Non-Operating Vibration		2Grms, random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis
Operating Shock		8G, Half sine, 11ms duration
Non-Operating Shock		50G, Half sine, 11ms duration
<b>Accessory</b>		
AC Adapter	90W PWR 20V Adapter	90.MB457.0010
Power Cord	US Power Cord	27.04218.18A0
	EU Power Cord	27.027A0.1830
L Type Holder		x 1
DVI to VGA converter		x 1
Power Clamp		x 2
HDMI To DVI Cable 1500mm		50.ADE03.0010
SATA to CF Bridge board		90.MA610.0410
Utilities & Drivers CD		52.8ET01.0040
Assembly Guide		49.DE201.0010
		x 1

AOpen reserves the right to revise all the specification and information contained in this document, which are subject to change without prior notice.

Note (1) : Max. hardware structure. System will not detected to 4GB due to chipset limitation.

